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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/593,306

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Krister Sundberg

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EXAMINER

WANG-HURST, KATHY W

ART UNIT

PAPER NUMBER

4173

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/593,306	<b>Applicant(s)</b> SUNDBERG ET AL.	
	<b>Examiner</b> KATHY WANG-HURST	<b>Art Unit</b> 4173	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 September 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 27-47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 27-47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/18/2006</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

1. Claims 1-26 have been cancelled and claims 27-47 are pending for examination.

### ***Claim Objections***

2. Claims 30, 38 and 43 are objected to because of the following informalities:  
typing error “-7 dB or lower” is meant to be “-7 dB or higher”. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 27 and 47 are rejected under 35 U.S.C. 102(e) as being anticipated by Kurt William Abrahamson et al., US2004/0109431, hereafter referred to as Abrahamson.

Regarding claim 27, Abrahamson discloses a method for enabling improved handover of a user equipment (Fig. 1, 150) communicating in a first radio access network utilizing a first radio access technology (RAT), said method comprising:

measuring, at said user equipment, a first parameter for a plurality of neighboring cells of at least a second radio access network utilizing WCDMA, reporting said first parameter to a node in said first network and initiating handover to one of said plurality of cells in said second network based on said reported first parameter;

measuring at least a second parameter for said plurality of cells of said second network **([0076] line 2, obtain a set of measurements for WCDMA cells);**

reporting said second measured parameters to said node in said first network **(Fig. 3 and [0082] lines 10-12, data is reported from terminal 150 to the switching center 130 for further processing);**

and

initiating handover to one of said plurality of cells in said second network based on both of said first and second measured parameters, and wherein both of said first and said second parameter is reported simultaneously and said first parameter is reported according to one of a limited range of values, and said second parameter is reported in the same field using a limited value range, whereby each first parameter value is reported together with one of a plurality of possible limited value ranges. **(Abstract and Fig. 2, 220-226, the cell re-election from GSM to WCDMA is achieved based on measuring signal quality of WCDMA cells, comparing measured results and selecting the best cell for handover. [0076] lines 7-8 and [0077], the measurements include two signal quality parameters: Ec/No and RSCP.)**

Regarding claim 28, Abrahamson discloses the method according to claim 27, wherein said first radio access network comprises one of GSM, WLAN and CDMA2000. **([0005])**

Regarding claim 29, Abrahamson discloses the method according to claim 28, wherein said node is a base station controller in a GSM radio access network. **(Fig. 1, 130 and [0082], base station switch center)**

Regarding claim 31, Abrahamson discloses the method according to claim 27, wherein said first parameter comprises information regarding the quality of the received signal at the user equipment. **([0076] line 9)**

Regarding claim 32, Abrahamson discloses the method according to claim 31, wherein said first parameter representing the chip energy divided by noise,  $E_c/N_o$ . **([0076], line 7)**

Regarding claim 33, Abrahamson discloses the method according to claim 27, wherein said second parameter comprises information regarding the signal strength of the received signal at the user equipment. **([0076] line 9)**

Regarding claim 34, Abrahamson discloses the method according to claim 33, wherein

said second parameter represents the Received Signal Code Power (RSCP). **([0076], line 8)**

Regarding claim 35, Abrahamson discloses the method according to claim 27, further comprising initiating handover to said second network based on optimizing a predetermined function depending on said first and second parameter. **(Fig. 2, 226, switch over/ handover after selecting a cell, and [0077] defines the algorithm/function depending on two parameters: RSCP and Ec/No)**

Regarding claim 36, Abrahamson discloses the method according to claim 27, further comprising initiating handover to a cell of said plurality of cells in said second network with the highest values on both said first and second parameters. **(Fig. 2, 226, best cell is selected based on comparing measurements for handover)**

Regarding claim 37, limitations in this claim are rejected based on the same reasons offered to reject claim 27.

Regarding claim 39, limitations in this claim are rejected based on the same reasons offered to reject claim 31.

Regarding claim 40, limitations in this claim are rejected based on the same reasons offered to reject claim 33.

Regarding claim 41, limitations in this claim are rejected based on the same reasons offered to reject claims 32 and 34.

Regarding claim 42, limitations in this claim are rejected based on the same reasons offered to reject claim 27.

Regarding claim 44, limitations in this claim are rejected based on the same reasons offered to reject claim 31.

Regarding claim 45, limitations in this claim are rejected based on the same reasons offered to reject claim 33.

Regarding claim 46, limitations in this claim are rejected based on the same reasons offered to reject claims 32 and 34.

Regarding claim 47, limitations in this claim are rejected based on the same reasons offered to reject claim 29.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 4177

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 30, 38 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abrahamson in view of 3GPP Technical Specification 25.215 v.3.1.0, published in December 1999, hereafter referred to as TS.

Regarding claim 30, 38 and 43, Abrahamson discloses measuring two parameters but fails to teach the ranges that the two parameters fall under. TS teaches said first parameter ranges [-24, ..., 0] dB (section 5.1.7), and said second parameter ranges [-115, ..., -25] dBm (section 5.1.1). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to include the ranges taught in TS into parameters disclosed by Abrahamson in order improve the clarity of the parameter values.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

**Japenga (US 2004/0082328)** discloses inter-RAT reselection between GSM and UTRAN.

**Schwarz (US 2006/0111110)** discloses an improved method to select a cell to reduce the probability of a handover between two networks.

**Magnusson (US 2007/0165537)** discloses a method and system to switch network cells based on retrieved information between two networks.



7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KATHY WANG-HURST whose telephone number is (571)270-5371. The examiner can normally be reached on Monday-Thursday, 7:30am-5pm, alternate Fridays, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benny Tieu can be reached on (571)272-7490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kathy Wang-Hurst/  
Patent Examiner

/Benny Q Tieu/  
Supervisory Patent Examiner, Art Unit 4173